

# The Intersection of Biomedicine and Traditional Medicine in the Peruvian Amazon

Melanie van Soeren<sup>a,°</sup>, BSc MD; Melissa Aragon<sup>a</sup>, BA MA MD

Citation info: UBCMJ, 2015; 7.1 (60-61)

<sup>°</sup> Corresponding author: melvansoeren@alumni.ubc.ca

<sup>a</sup> Family Medicine PGY1, Faculty of Medicine, Memorial University, St. John's, NL

<sup>b</sup> Family Medicine PGY1, Faculty of Medicine, University of British Columbia, Vancouver, BC

## abstract

In Northeastern Peru, in the Amazonian district of Loreto, one million Peruvians, mostly Indigenous and Mestizo, live isolated from the rest of the rapidly developing country. This region has a rich history of traditional medicine, and with financial, geographical, and cultural barriers to biomedical care, there exists a unique interaction between allopathic and alternative treatment models. During a clinical elective in the village of Santa Clotilde, in a hospital serving a population of twenty thousand people, two University of British Columbia medical students encountered this integrative system and witnessed health-seeking behaviours that at times were positive, and at others led to tragedy.

Peru's northeastern province, Loreto, is geographically remote and in many ways disconnected from the rest of the country. The population density here is only 2.4 people per square kilometre.<sup>1</sup> In this region, deep within the Amazon, on the shore of the Napo River, lies the village of Santa Clotilde. The Centro de Salud de Santa Clotilde (CSSC) is a health center that serves the population of twenty thousand living along the Napo River. The CSSC provides inpatient and outpatient medical care, dental, obstetrical and basic surgical services, and coordinates public health campaigns up- and down-river. In February of 2015, two fourth-year medical students completed a clinical elective at the CSSC, following in the footsteps of many other UBC medical students who for years have been making the journey to the Amazon to enrich their tropical medicine knowledge, practice their medical Spanish, and experience the provision of medical care in a low-resource setting.

Peru is rapidly developing, but the improving healthcare system has yet to reach the remote areas where resources such as essential medicines are in short supply. Infections, primarily diarrheal disease, parasites, malaria, and tuberculosis, as well as trauma are the major causes of morbidity and mortality in the region.<sup>2</sup> It is

on this frontier, where access to allopathic medicine is limited, that traditional forms of medicine intersect with biomedicine.

One Santa Clotilde physician estimated that 90 % of patients sought care by a local healer prior to presenting at the health centre. Consistent with this, a healthcare access study conducted in the region found that 80 % of the study population had consulted a shaman in the previous year, while only 43 % of the population said they had access to a Western physician.<sup>3</sup> Furthermore, the majority of the study participants stated they believe traditional medicine to be better than or equal to Western medicine.<sup>3</sup> However, there is some disagreement in the literature, as a recent study in the region by Williamson et al. found that the local population "preferred modern over traditional medicine, predominantly because of mistrust or lack of belief in traditional medicine."<sup>4</sup> With small sample sizes and selection bias, these studies have flaws, and better quality research should be conducted to further understand healthcare-seeking behaviours in this region.

Vegetalismo, the most common form of traditional medicine encountered in Santa Clotilde, is a syncretic healing tradition that borrows from both

indigenous and Catholic beliefs. It is mainly practiced by members of the Mestizo population. Vegetalistas, those who practice Vegetalismo, gain their healing powers from the spirits of forest plants.<sup>5</sup> They use diverse plant species as treatments for various ailments and make teas that purge "impurities."<sup>6</sup> There is pharmaceutical activity in many of these plants, and in one study 23 of 31 samples of plants used in traditional medicine had antibiotic activity.<sup>7</sup> They also perform healing ceremonies involving chupando (sucking) and the use of tobacco smoke.

While access to Vegetalistas is easy for the local population, access to Western medicine is more complicated. Thus, we wondered how people made decisions about how and when to access allopathic medical care. Factors we perceived as being important in preventing access to Western medicine were cost, distance, time, and accessibility. These were recurring themes in the stories we heard from patients and their families, and are consistent with the findings of the healthcare access study.<sup>3</sup> For example, the journey for families living up- or down-river can be up to eight hours by peke-peke, a canoe with an outboard motor. Families need to have access to a boat, gasoline, time, good weather, and stable enough health to manage the

journey. Layer onto that potential mistrust and disbelief that Western treatments will work and occasional dissatisfaction with care due to long wait times and lack of resources, and it is shocking how many patients actually make it to Santa Clotilde.

Two patient encounters in Santa Clotilde illustrate this intersection of Western and traditional medicine — Roberto and Lette. Both patients' stories provide a commentary on health-seeking behaviour in the remote Amazon. Roberto was a 50-year-old man with cirrhosis and hepatocellular carcinoma, a common presentation in this region due to the paucity of immunization against Hepatitis B. In planning for his care, it became evident that while we understood him to be palliative and were hoping only to limit his suffering, he was hoping for a cure. We managed his symptoms as best we could, although without access to morphine adequate pain control was challenging. He chose to pursue care with a local healer simultaneously, a choice that some of the hospital staff disapproved of and attempted to restrict. Depending on a patient's illness, this health-seeking behaviour may be deemed acceptable by the hospital staff; at other times, however, these actions are viewed as irresponsible and ignorant, and are a major source of discord. If the patient's prognosis is particularly grave, nursing staff are critical and create more barriers to the patient utilizing traditional medicine. Roberto ultimately discontinued his treatment at the health centre to pursue what he believed to be curative treatment with the shaman. In conversation he expressed that the traditional practices brought him hope and made him feel supported. He died several days after leaving our care. Lette presented to CSSC one afternoon. Her husband gave a brief history: the 34-year-old woman had been well until the day before, but had started to complain of a headache and chills that morning. She subsequently became obtunded. Physical exam revealed multiple patches consistent with purpura across her chest and back. Immediately a hemorrhagic fever or meningococemia topped our differential.

As the nursing staff gained IV access, we quickly shared with our attending

the concern regarding the purpura. The attending turned to the husband and asked: "Fue al vegetalista? Chupando?" (Did she go to the traditional healer? Sucking?). The husband answered "Ayer" (yesterday). Our attending turned to us and explained, "it's not purpura, she went to a traditional healer yesterday who did chupando, sucking, to try and remove the sickness. They use their mouth on the skin." Peripheral blood smears later revealed that Lette had *Plasmodium falciparum* malaria. With appropriate anti-malarials she made a full recovery. Lette initially chose to attend the traditional healer over the health center due to her strong belief in traditional medicine, and, logistically, due to the healer's close proximity and the minimal resources involved in visiting him.

The cases of Roberto and Lette highlight the intersection of traditional healing practices with allopathic medicine. Both patients chose, at different times in their illnesses, to pursue different forms of treatment. Neither patient overtly viewed the forms of medicine as competing, but rather, employed them depending on a variety of factors including immediate needs, cost, distance, and accessibility. Roberto initially presented to the health centre, but, in the face of his terminal illness, turned to the local shaman when biomedicine could not meet his needs. Lette presented to the health centre after her conditioned worsened, however; her initial consult had been to a Vegetalista within her community.

This brief discussion of the intersection of allopathic and traditional medicine in the Peruvian Amazon invokes more questions than answers. What is clear is that traditional and allopathic medicine should not be seen as dichotomous, particularly due to the widespread use of and belief in traditional medicine. It is only through understanding the cultural influences and logistical barriers that access to healthcare can be improved. There is need for improved understanding and trust-building between traditional healers and allopathic clinicians. Further, health education and increased availability of both the evidence-based treatments and those that fall within the patient's particular belief system are imperative. The World

Health Organization's Traditional Medicine Strategy provides an approach by which this may be accomplished.<sup>8</sup> This approach encourages allopathic and traditional medicine practitioners to learn about each other's methods and scope of practice. It also calls for improved communication between patients and allopathic health practitioners regarding traditional medicine and shared care models.<sup>8</sup>

## disclosures

The authors do not have any conflicts of interest.

## references

1. Algunos datos importantes para la gestión en la Amazonia peruana [Internet]. Peru: Instituto de Investigaciones de la Amazonia Peru [cited 2015 Mar 22]. Available from: [http://www.iiap.org.pe/promamazonia/SGAmbiental/pambientales/datos\\_importantes.html](http://www.iiap.org.pe/promamazonia/SGAmbiental/pambientales/datos_importantes.html)
2. Principales causas de mortalidad por sexo: Departamento de Loreto [Internet]. Lima: Ministerio de Salud – Oficina General de Estadística e Informática [cited 2015 Mar 13]. Available from <http://www.minsa.gob.pe/estadisticas/estadisticas/Mortalidad/Macros.asp?16>.
3. Brierley CK, Suarez N, Arora G, Graham D. Healthcare Access and Health Beliefs of the Indigenous Peoples in Remote Amazonian Peru. *Am J Trop Med Hyg*. 2014 Jan 8; (90):1180–1183.
4. Williamson J, Ramirez R, Wingfield T. Health, Healthcare Access, and Use of Traditional versus modern medicine in Remote Peruvian Amazon Communities: A Descriptive Study of Knowledge, attitudes, and Practices. *Am J Trop Med Hyg*. 2015 Feb; (92):857–864.
5. Luna LE. Vegetalismo - Shamanism Among the Mestizo Population of the Peruvian Amazon. [dissertation]. Stockholm: University of Stockholm; 1986. Available from <http://www.scribd.com/doc/26541421/Vegetalismo-Shamanism-Among-the-Mestizo-Population-of-the-Peruvian-Amazon#scribd>. [Accessed March 13, 2015]
6. Ceuterick M, Vandebroek I, Pieroni A. Resilience of Andean urban ethnobotanies: a comparison of medicinal plant use among Bolivian and Peruvian migrants in the United Kingdom and in their countries of origin. *J Ethnopharmacol*. 2011; 136:27–54.
7. Jovel EM, Cabanillas J, Towers GH. An ethnobotanical study of the traditional medicine of the Mestizo people of Suni Mirano, Loreto, Peru. *J Ethnopharmacol*. 1996; 53:149–156.
8. WHO traditional medicine strategy 2002-2005 [Internet]. World Health Organization [cited 2015 Apr 24]. Available from [http://herbalnet.healthrepository.org/bitstream/123456789/2028/1/WHO\\_traditional\\_medicine\\_strategy\\_2002-2005.pdf](http://herbalnet.healthrepository.org/bitstream/123456789/2028/1/WHO_traditional_medicine_strategy_2002-2005.pdf).